

SENCAN Sensory Specialism

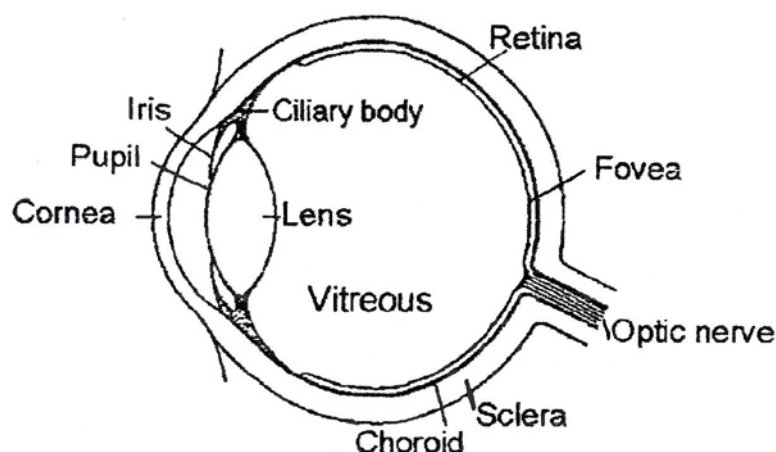
Information on visual conditions for parents and teachers

Bardet-Biedl-Syndrome

This leaflet contains general information on Bardet-Biedl Syndrome, some of the more important visual characteristics of the condition, and possible educational implications. The severity of the range of disabilities associated with this syndrome is particular to the individual pupil and will vary from person to person. Personality and general health also impact on vision.

BBS is a recessively inherited condition. Fourteen genes have been identified to date with the expectation of more to follow. It has a range of possible features and some may not occur at all. Developmental delay, obesity, kidney problems, hypogonadism and irregular menstrual cycles, and additional, or disabled, fingers or toes are all possible symptoms.

The eye.



The ocular problem that may occur is rod-cone dystrophy. The rods and cones are the names of cells that make up the retina, the light sensitive tissue lining at the back of the eye. Its onset is usually during the Primary years and shows itself initially as night blindness.

The condition then progresses as the retina degenerates and the child may lose some ability to see through the whole visual field. Loss of peripheral vision is frequently spoken of as tunnel vision. As the visual fields 'close in' the child may begin to appear clumsy. He/she may begin to stumble over objects (lack of lower gaze), walk into open doors (side vision) or bump into cupboards at head height (upper gaze).

The child's functional vision is also likely to be affected by changes of lighting. Because the cells of the retina that are responsible for seeing at night are impaired, low lighting will make it more difficult for the child to use residual sight. Glare will also reduce the child's ability to use sight effectively. The child may find interpreting non verbal communication difficult and may respond in a way that appears inappropriate. Adult interpretation may be necessary when the child is unable to pick up on gesture, posture and facial expression.

Educational Implications

As the field of vision reduces the child will need to use new strategies to read and write. This may involve moving the whole head to scan or adopting a head tilt - both of which will slow the speed of work. Differentiation through reduced volume of work may be appropriate.

Classroom management needs to consider the child's seating. The light source from the windows should come from behind, or to the side of, the child. Glare can be avoided by adjusting seating whenever necessary. Light may reflect off shiny surfaces and white boards at different times of day or year. Laminated materials tend to reflect glare but matt laminates can be purchased.

The child's distance vision may also be impaired and table top copies of board work should be provided. Aim to provide high contrast print materials and avoid text over the top of a picture. Any resources should be on a plain contrast background, including counting cubes etc. Make sure the interactive whiteboard has good contrast too. a new bulb in the projector is a good idea.

When negotiating stairs/steps, if the class go anywhere all together, the visually impaired child might prefer to be at the back of the line so they don't feel under pressure. Keep lighting as consistent as possible and be aware that after a bright playground, the eyes will take time to adjust to dimmer lighting indoors and the child may need to pause when moving from one area to another of different light intensity. If lighting is constant, and without shadow around the school, the child's independence and confidence can be maintained. Strip lighting gives a constant light and darker areas may require stronger bulbs. The child may need to wear tinted lenses and care should be taken in dim lighting that safety is not endangered. Keep the floors clutter free, and tuck chairs in.

Touchtyping should be commenced once the child's hands are big enough as it is a very useful skill. Seating position is a personal thing to the pupil and their own Specialist Teacher needs to advise on that. The child with restricted field of vision will not necessarily benefit from enlargements. The specialist teacher will reassess this regularly as residual sight changes.